

FRANKLIN ENGINE COMPANYMODELS: Aircooled Motors 6AC-298 Series and 6ACT-298 SeriesT.C. NUMBER: T.C. 225

Model - Franklin	6AC-298-D2, D3	6AC-298-E2, E3	6AC-298-F2, F3	6ACT-298-J4, J5 (O-300-11)	6ACT-298-M4
Type	6HOA	----	----	----	----
Rating:					
Maximum continuous, hp, rpm, in. Hg., or full throttle at:				90-3200-F.T.-1700	
Rated press. alt.	----	----	----	130-3200-F.T.-7500	----
S.L. press. alt.				130-3200-23.3- S.L. or 155-2930-F.T.- S.L.	----
Take-off, hp, rpm, in. Hg., or full throttle	130-2600-F.T.- S.L.	130-2450-F.T.- S.L.	130-2550-F.T.- S.L.	130-3200-23.3 or 155-2930-F.T.	----
Fuel (minimum octane aviation gasoline)	73	80	----	100	----
Bore and stroke, in.	4.25 x 3.50	----	----	----	----
Displacement, cu. in.	298	----	----	----	----
Compression ratio	6.3: 1	7: 1	----	8.4: 1	----
Weight (dry), lbs.	260, 267	265, 272	261, 268	298, 308	290
Propeller shaft	Special with integral flange 8-7.16 in. bolt, -5 in. circle	----	----	----	----
Carburetion	Marvel MA- 3A or MA-3 carburetor with 1-3/8 in. venturi	Dual Marvel MA-3A carburetors with 1-3/8 in. venturi	Marvel MA- 3A or MA-3 carburetor with 1-3/8 in. venturi	Dual, Marvel MA- 3PAA carburetors with 1-3/8 in. venturi	Dual, Marvel MA-3A carburetors with 1-3/8 in. venturi
Ignition, dual	Eisemann 1A- 6 magnetos with impulse coupling (retard 25 degrees)	----	----	Scintilla SF6-RN-8 magnetos	----
Ignition, timing, deg. BTC	28	----	----	J4 - 30, J5 - 28	30
Oil sump capacity, quarts	8	----	----	8-1/4	10
Spark plugs	Champion AJ- 66, C-10S, 78S; Simmonds-	----	----	----	----

Benton 4D3-  
S; AC SA-  
47; Auto-Lite  
A5-B or A4-  
S

Certification basis      Type Certificate No. 225 (See NOTE 5)

NOTE 1. Maximum permissible cylinder head, cylinder barrel and oil inlet temperatures, 500 degrees F.,

300 degrees F., and 240 degrees F., respectively, for all except the 6ACT-298-J4, J5 and M4 models whose limits are 480 degrees F., 300 degrees F., and 220 degrees F., respectively.

NOTE 2. In addition to the differences shown above, the following similar engine models have identifying characteristics as noted:

Models

6ACT-298-M4	One generator, central zone type oil pan manifold
6ACT-298-J4	Two generators, two gallery type intake manifolds
6ACT-298-J5 (O-300-11)	One large generator (with brace) two gallery type intake manifolds

NOTE 3. The following accessories are eligible for use on the specified engine models at the indicated additional weights:

Optional Accessories

Weight (lbs.)

Generator

Auto-Lite type GAS or GDY (Models - 3 only)	12
Auto-Lite type No. 11496 (Models - 4 only)	12
Auto-Lite type No. 11497 (Models - 4 only)	12
Leece-Neville, type E7A (J5 only)	22

Starter

Auto-Lite, type MBG or MZ (Models - 3 only)	16
Delco-Remy, type No. 10749 (Models - 3 only)	16
Delco-Remy, type No. 10750 (Models - 4 and 5 only)	16

Fuel Pump

AC, type No. 10739	3
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Hydraulic Pump

Pesco Model 196-C (Models - 4 only)	3
Pesco Model 196-CE (J5 only)	3

Vacuum Pump

Pesco Model 194-E (Models - 4 only)	4
Pesco Model B-12 (J5 only)	5

The following accessory drives are provided:

	Direction of Rotation, C = Clockwise	Drive Speed	Maximum
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Accessory	Nearest AN Pad Designation	CC = Counter- clockwise	(X Crankshaft RPM)	Maximum Torque (in. - lbs.)		Overhang Moment (in. lbs.)
				Continuous	Static	
Starter	None	CC	11.444: 1	- - - -	240	30
*Generator	None	CC	1.000: 1	8	15	45
**Generator	None	CC	1.650: 1	8	15	45
***Generator	AND 10002	C	1.160: 1	600	3600	100
Tachometer	AND 10005	CC	0.500: 1	20	60	2
**Vacuum or Hydraulic Pump	AND 10000	C	1.000: 1	75	300	25
Vacuum or Hydraulic Pump	AND 10000	CC	1.269: 1	150	2250	25

\*All except 6ACT-298-J4 and J5

\*\* -J4 only

\*\*\* -J5 only

NOTE 4. The corresponding commercial model designations or military engine models installed in certificated aircraft must be incorporated on the engine nameplate at least by the first overhaul period.

NOTE 5. Approval expired 11/5/50. No engines of these models manufactured after the date shown below or with serial numbers above those listed are eligible for use in certificated aircraft:

<u>Models</u>	<u>Date Last Engine Manufactured</u>	<u>Serial No.</u>
6AC-298-D2, D3	9/23/43	400123
6AC-298-E2, E3, F2	12/12/40	400108
6AC-298-F3	12/30/44	400225
6ACT-298-J4	8/30/43	400156
6ACT-298-J5, -M4	3/25/46	3-522116